

# ABSTRACT OF THE DISCLOSURE

An imaging apparatus using a charge multiplying solid-state imaging device for use with an endoscope system, etc., capable of providing an output signal with an improved S/N ratio by reducing the dark noise. The full well size of the CCD imaging device is reduced to  $1/M$  of the number of electrons corresponding to a maximum amount of light which may be received by the individual pixel determined by the technical specifications of the system, and the signal charges are read out  $N$  times in a prescribed time period corresponding to a time for a single frame in a TV frame rate. The system satisfies the relation,  $nd(1-1/M) > nr^2(N^2-1)$ , assuming that  $nd$  is the dark noise and  $nr$  is the readout noise contained in single reading from a reference solid-state imaging means having a full well size equivalent to the number of electrons described above.